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University of Washington

Abstract

Graduate Scholarly Project

First Trimester Breastfeeding Education:
Can early education improve duration in the military community?

By Winifred G. Koehler

Chairperson of the Supervisory Committee: Kristen M. Swanson, RN, PhD, FAAN

Committee Member: Virginia R. Wall, MN, IBCLC

School of Nursing

The intent of this proposed course is to increase opportunities for learning the advantages of breastfeeding initiation and duration for the military family. This is to be accomplished by breastfeeding education during the first trimester of pregnancy or pre-conception with a monthly breastfeeding support group offered. This will introduce breastfeeding to families early and offer social support through the group meetings. The benefits of breastfeeding are many and very well reported. According to the Department of Health and Human Services, 2000, the benefits include: fetal resistance to infectious diseases, enhanced immune system, balanced nutrition and growth, reduced risk for chronic diseases, developmental benefits, improved maternal health, and many socioeconomic benefits. (Department of Health and Human Services, 2000). According to Healthy People 2010, the goal for the United States is that 75% of mothers in the early postpartum period will breastfeed their infants, at six months 50% will continue to breastfeed, and at one year 25% will continue (Healthy people 2010). Although breastfeeding in the United States is at an all time high, it has not reached the Healthy People 2010 goal. The intention of offering the proposed course is to increase breastfeeding duration in the military community to approach, or even reach the goals of Healthy People 2010 in the future. This increase should result in a commensurate decline in babies with health issues related to human milk substitutes.

First Trimester Breastfeeding Education: Can early education improve duration in the military community?

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Proposal for Early Breastfeeding education series:

- Breastfeeding class during 1st trimester of Pregnancy or preconception
- Breastfeeding how-to course late in pregnancy
- Monthly breastfeeding support group with education series for attendees

Purpose of Course Offerings

"Breastfeeding is the single most important decision that a mother can make related to the continued health and well-being of her baby after pregnancy. It is the baby's foundational health promotion behavior that must be supported by an informed and willing mother and a caring society."
(Lowe, 2004)

A Blueprint for Action within the Family and Community Settings

- Develop social support and information resources for breastfeeding women such as hotlines, peer counseling, mother-to-mother support groups, etc.
- Launch a public health marketing campaign portraying breastfeeding as normal, desirable and achievable
- Encourage the media to portray breastfeeding as normal, desirable and achievable for women of all cultures and socioeconomic levels.
- Encourage fathers and other family members to be actively involved throughout the breastfeeding experience.

Excerpt from HHS Blueprint for Action on Breastfeeding

(Department of Health and Human Services, 2000).

Recommendations of Healthy People 2010:

1998 Baseline:	**Target for 2010:**
Early Postpartum: 64%	Early Postpartum: 75%
At 6 months: 29%	At 6 months: 50%
At 1 year: 16%	At 1 year: 25%

Sample of Medical/Health organizations recommending breastfeeding

- American Academy of Pediatrics (AAP)
- American College of Obstetricians and Gynecologist (ACOG)
- World Health Organization (WHO)
- National Association of Pediatric Nurse Practitioner
- Association of Women's Health Obstetrics and Neonatal Nursing (AWHON)
- UNICEF
- American dietetic association

Purpose of education series:

This change in education has a goal of:

✓Increasing breastfeeding rates in the military population

✓Increase the health of mothers and infants in the military community

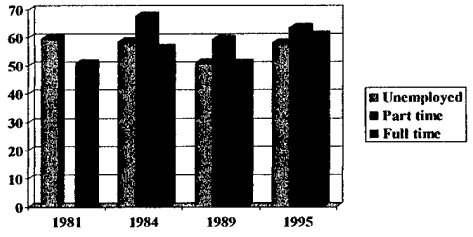
✓Increase support of breastfeeding families in working environment

✓Increase community support of breastfeeding within the greater community in which we live

Breastfeeding education:

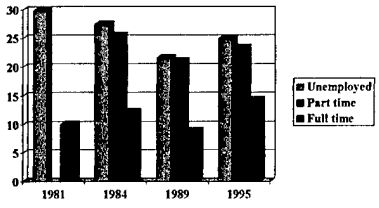
The typical breastfeeding classes are conducted in conjunction with childbirth education or as a separate class offered during the last part of pregnancy.

Breastfeeding trends in the United States at Birth



Wright, 2001

Breastfeeding trends for infants at 6 months of age



Wright, 2001

Women who are most likely to breastfeed are:

- Older
- White or Hispanic
- High-school education or greater
- Higher income
- Unemployed

Women most unlikely to breastfeed are:

- High school education or less
- Minorities
- Working women

Infant benefits of Breastfeeding

Decreased incidence of:	Decreased lifetime risk of:
Otitis media (ear infections)	Lymphoma
Diarrhea	Leukemia
Respiratory infections	Multiple sclerosis
Meningitis	Diabetes mellitus
Urinary tract infection	Chronic liver disease
Appendicitis	Ulcerative colitis
Allergies	Childhood obesity
Sudden infant death syndrome	Crohn's disease
Necrotizing enterocolitis	Oral malocclusions
Esophageal and gastric lesions	Celiac disease

Zembo, C. T. (2002). Breastfeeding. *Obstetrics and Gynecology Clinics*, 29(1).

Maternal benefits of Breastfeeding

•Decreased blood loss after delivery of infant •Increased bonding with infant •Delayed resumption of Ovulation with increased child spacing (Zembo, 2002).	**Decreased lifetime incidence of**: •Premenopausal breast cancer •Ovarian cancer •Poor bone mineral density

Employer benefits of employee breastfeeding:

- 3 fewer sick days used by employees
- $1435 fewer medical costs for insurance company
- Less turnover of employees
- Higher morale of employees
- Greater retention of employees

(Kaiser Permanente, 1997)

Contraindication to Breastfeeding:

Only two:

- Maternal HIV infection
- Breast Cancer found during pregnancy

Lawrence, 1999

Course Outline:

- Introduction of instructor
- Introduction of class participants
- Feeding methods of the newborn: Bottle with human milk substitute vs breastmilk
- Breastfeeding recommendation of AAP and the WHO
- Risks and benefits of bottle feeding and breastfeeding
- Video: Why to breastfeed (25 min.) (Vida Health, 1998)
- Discussion of indications not to breastfeed: Alternatives (formula and milk banks)
- Breast and infant mouth anatomy
- Introduction of breastfeeding support group
- Sign up for breastfeeding group with hand-out of Annotated Bib for breastfeeding families

Proposed Early Breastfeeding Education class objectives:

At the end of the course, women will be able to:

- Verbalize and understand the views of the American Academy of Pediatrics (AAP) and the World Health Organization (WHO) for recommended duration of breastfeeding.
- Identify the anatomy and physiology of the lactating breast and infant's mouth, and how they interrelate when breastfeeding.
- Understand the health benefits of breastfeeding for both the mother and the newborn

Support Group Objectives:

By attending the support group, families will:

- Provide, as well as receive support by having an opportunity to meet and engage in conversation with other breastfeeding families
- Be provided the opportunity to interact with other breastfeeding families and exchange information and questions to encourage continued breastfeeding
- Foster continued breastfeeding education by beginning group meetings with a short education briefing (approximately ½ hour) based on requests by the attendees from the previous month

Breastfeeding families need further support from the community at large:

- Support breastfeeding in the work place
- Support breastfeeding at the base Child Care facility
- Support breastfeeding by making it the norm in the community

Lactation Rooms:

Necessary Mother's Room Items:

- Door that locks from the inside
- Chair
- Footstool
- Breastpump (if purchasing for multiple-mothers' use)
- Shelf or table on which to rest a breastpump
- Electricity
- Lights
- Garment hook on back of door
- Cavicide spray cleaner

(Medela, 2002)

Optional Mothers room items:

- Music
- Pastel color scheme
- Bulletin board for mothers to put up photos of infants
- Decorative posters
- Running water
- Refrigerator
- Educational materials about breastfeeding

(Medela, 2002)

Conclusion:

With the addition of the early breastfeeding education course and support group it is hoped that breastfeeding for 12 months in the military community will increase.

With the added support of employers and supervisors it might be possible to increase the number further.

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Zembo, C. T. (2002). Breastfeeding. *Obstetrics and Gynecology Clinics,* 29(1).

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May 2003

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Purpose

The intent of this proposed course is to increase opportunities for learning the advantages of breastfeeding initiation and duration for the military family. This is to be accomplished by breastfeeding education during the first trimester of pregnancy or pre-conception with a monthly breastfeeding support group offered. This will introduce breastfeeding to families early and offer social support through the group meetings.

A New approach to Breastfeeding education

In an internet search of community hospitals around the United States it was found that most hospitals/birthing centers offer courses in breastfeeding education. These courses are offered as part of childbirth education or courses on early infant care and include breastfeeding information as added instruction. Most military installations also offer breastfeeding education as a separate course and also include breastfeeding information in birthing classes (Bell, 2003). Further, most couples/partners take these courses during later pregnancy when they are planning the birth of their child. However by late pregnancy most women have already decided how they are going to feed their infant, and the classes are not designed to assist the family in choosing the appropriate feeding methods (Lawson, Counselling & Tulloch, 1995). The course proposed will teach infant feeding choices (i.e. Breastfeeding vs Human milk substitutes) during early pregnancy or pre-conception so that couples/partners can choose a feeding method. It is important that families have an opportunity to make an informed decision.

Informed decision-making requires that a patient/family gives consent based on the understanding of the nature, risks and alternatives of the procedure, test or

treatment. In the case of infant feeding, informed decision must be made based on information with regards to the impact of feeding choices on the mother, infant and family.

The Impact of Breastfeeding

The benefits of breastfeeding are many and very well reported. According to the Department of Health and Human Services, 2000, the benefits include: fetal resistance to infectious diseases, enhanced immune system, balanced nutrition and growth, reduced risk for chronic diseases, developmental benefits, improved maternal health, and many socioeconomic benefits. Some infections that are decreased in breastfeeding infants are diarrhea, respiratory tract infection, and otitis media (Department of Health and Human Services, 2000). In the Navajo community pneumonia, bronchitis and gastroenteritis decreased significantly after a breastfeeding promotion increased exclusive breastfeeding from 16.4% to 54.6% (Wright, Bauer, Naylor, Sutcliffe & Clark, 1998). These are the common illnesses that children are seen for in pediatric clinics which may be reduced by breastfeeding (Scariati, Grummer-Strawn & Fein, 1997).

When women are aware of the benefits and risks of breastfeeding versus human milk substitutes, they will often choose to breastfeed early and continue to breastfeed longer (Susin, Glugliani, Kummer, Maciel, Simon & da Silveira, 1999). This could potentially save many health care dollars for the American public through the reduction of infectious disease. One example showed medical costs for breastfed infants were approximately $200 less per child for the first 12 months of life than those for formula-

fed infants (Hoey and Ware, 1997). Another study conducted by Kaiser Permanente found a $1435 reduction in health care costs to include: decreased pediatric visits, prescription medications and hospitalizations. These health benefits and decreased medical costs continue as the breastfed child ages. (American Academy of Pediatrics, 1997)

Although breastfeeding in the United States is at an all time high, it has not reached the Healthy People 2010 goal, which breastfeeding educators continue to promote. According to Healthy People 2010, the goal for the United States is that 75% of mothers in the early postpartum period will breastfeed their infants, at six months 50% will continue to breastfeed, and at one year 25% will continue (Healthy people 2010). In spite of a drop from 1982-1989 the rate of breastfeeding initiation has risen to the rate of 69.5% in 2001 (Ryan, Wenjun & Acosta, 2002). Additionally, the rates for exclusive breastfeeding were 17.2%, an increase of 3.2% since 1971 (Ryan et al., 2002). At the projected present rate of increase, approximately 2% per year, the goal could be met for initiation of breastfeeding by 2010, but the goal for continuation of breastfeeding at six months of age, and one year will not be met (Ryan et al., 2002).

The rate of breastfeeding varies for many reasons. Some of the reasons are: the age of the mother, race, the mother's education level, employment status, and where she lives in the United States (Ryan et al., 2002). The lowest rates of breastfeeding are in non-white, younger, less educated, working, first time mothers (Ryan et al., 2002). Also, working outside of the home greatly affects breastfeeding, where only 14% of mothers who are employed full time continue to breastfeed at six

months compared with 25% of non-working mothers (Ross Laboratories mothers' survey,1998).

Breastfeeding education is a major influence on women who desire to breastfeed their infants. Breastfeeding promotion and support are an integral component of health care (National Association of Pediatric Nurse Practitioners, 2001). Duration of breastfeeding has been shown to be associated with intent to breastfeed but many women feel that they do not have enough breastfeeding knowledge before the delivery to breastfeed successfully (Scott, Aitkin, Binns & Aroni, 1999; McLeod, Pullon, & Cookson, 2002). Many women are aware of the benefits of breastfeeding as shown by the rise of breastfeeding initiation rates over the past 10 years, but the rates continue to be low at the six month point. Minority women and women of lower socioeconomic status continue to be at the highest risk for discontinuing breastfeeding early (Wright, 2001; Sisk, Greer, Wojtowyez, Piineus, & Aubry, 2004). Further, it has been shown that many of the women who quit breastfeeding early preferred to have breastfed longer, and have feelings of guilt, depression, and anxiety associated with their decision (McLeod et al., 2002).

Women in the Military community

Women in the military community represent many cultures. For instance, in addition to women in the military, the spouses of servicemen are women who come from communities all over the world, regularly traveling to unfamiliar areas that lack a strong social support system. According to Department of Defense 93% of military spouses (i.e., dependents of active duty military members) are women. Sixty-nine

percent of these women are under age 35, and the majority of *these* women (92.8%) have only a high school education (Military Family Resources, 2002). The mean age of dependent wives for having their first child is 24.5. According to Healthy People 2010, only 39% of young mothers exclusively breastfed in the hospital, and only 12.7% at six months (2000).

Education offered

The U.S. Preventive Services Task Force (USPSTF) gives structured breastfeeding education and behavioral counseling programs a B recommendation. This means that they found fair evidence that this type of program is associated with increased rates of breastfeeding initiation and its continuation for up to three months. The effects beyond three months are uncertain (2003). Other methods of education have not shown to be as effective. Peer counselors are useful but costly, and written materials alone do not appear effective in increasing breastfeeding rates (USPSTF, 2003). Further, most breastfeeding education courses are taught during late pregnancy on a one time basis for women who have already declared their intention to breastfeed. Coupled with the education factors, women who decide to breastfeed before pregnancy are three times more likely to initiate breastfeeding than women who decide to breastfeed during pregnancy (Scott et al., 1997). These findings suggest that there is a need for early breastfeeding education when women are preparing for or just after entering care for their pregnancy.

Women often make the decision to breastfeed early in pregnancy or before conception (Lawson et al, 1995). Often this occurs when the provider inquires whether

they intend to breast or bottle-feed and this is recorded on the medical record (Chezem, Friesen, & Boettcher, 2003). Women who are planning to breastfeed are often encouraged to attend education courses during the third trimester of pregnancy.

Breastfeeding in the Military

Currently in the military there is no minimal guidance policy concerning breastfeeding. All branches give the postpartum woman 42 days of convalescent leave after delivery. All branches also offer some protection from deployment for four months postpartum with the Coast Guard allowing six months deferment (Institute of Medicine, 1998). The Department of Defense (DOD) health care system is serviced by TRICARE. TRICARE has no official policy and no definition of benefits on breastfeeding, although it is covered in the well-child program, and benefits in military medical facilities vary by facility (TRICARE management, 2001; Bell, & Ritchie, 2003). According to Bell, 95% of military treatment facilities offer breastfeeding classes, 100% offer rooming in with infants after delivery, but less than 40% offer return to work support, and over 70% provide formula samples at discharge of mother and infant (2003). Although helpful, the classes were found to contain information on benefits and the process of breastfeeding and did not include the information concerning difficulties maintaining breastfeeding (Bell, 2003). Also, handouts were often found to be from formula companies and many of these may not support breastfeeding fully (Valatis, Sheeshka, & O'Brien M, 1997).

One study showed that the initiation rate for active duty women is above 80%, but "most stop breastfeeding between three and eight weeks." The intention to breastfeed for African American women in the military community was found in one

study to be 95% (Bell, 2004). This study included active duty women along with wives of military members. Many of the women married to military men are young, living away from family and social support for the first time, and relatively new to, and unfamiliar with their current community. These women embody the group most likely to discontinue breastfeeding before six months of age. Lack of breastfeeding social support and encouragement in the military setting decreases success of military families to breastfeed for their intended duration.

Theoretical Framework

This course will be based on the Health Belief Model. "The health belief model and social learning theory assist the nurse in formulating an action plan that meets the needs and capabilities of the individual in making health behavior changes" (Edelman & Mandle, 2002). Behavior change using this model is initiated by environmental factors and a readiness to take action (Fingeld, Suporn, Conn, Grando, & Russell, 2003). Behavior is influenced by perceived beliefs such as; susceptibility, severity, efficacy of behaviors, barriers and self-efficacy (Fingeld et al, 2003). Nurses are in a unique position to affect behavior change using this method. The nurse educator can assist the client to believe the benefits of performing the behavior outweigh the disadvantages, barriers, or negative consequences, and this client is more likely to complete the behavior than those without the belief (Goldman, & Schmalz, 2001).

In becoming involved with the course and support group the client will be presented with factors contributing to breastfeeding, which include: motivation (family

support and cultural support), education (prenatal and postnatal), and skill (practice, access and training) (Heinig, & Farley, 2001).

Course and Support Group offered

The initial course will be offered at the Obstetrics orientation that all women who receive care in the military treatment facility must attend.

Standard materials distributed to all women in the Obstetrics Orientation include:

- Orientation to medical care during pregnancy presented by clinic RN (schedule of appointments, who to call if problems arise, and introduction to providers)
- Maternal nutrition during pregnancy, what to eat, and what not to eat (presented by nutritionist)
- Exercise during pregnancy (presented by physical therapist)
- Medications during pregnancy (presented by clinic RN)
- Orientation to courses offered to families during pregnancy (presented by clinic RN)

The addition of the proposed "Introduction to Breastfeeding Education" to the orientation will offer course participants the opportunity to receive the information for informed decision making pertaining to infant feeding. Course duration will be approximately two hours. At the end of the session, women will be able to:

- Verbalize and understand the views of the American Academy of Pediatrics (AAP) and the World Health Organization (WHO) for recommended duration of breastfeeding
- Identify the anatomy and physiology of both the lactating breast and the infant's mouth and how they both interrelate when breastfeeding
- Understand the health benefits of breastfeeding for both the mother and the newborn

The course will focus on giving basic information for families on early infant nutrition and breastfeeding. The course outline includes:

- Introduction of instructor
- Introduction of class participants
- Feeding methods of the newborn:
  Bottle with human milk substitute vs breast milk
- Breastfeeding recommendation of AAP and the WHO
- Risks and benefits of bottle feeding and breastfeeding (attachment A, B and C)
- Video: Why to breastfeed (25 min.) (Vida Health, 1998)
- Discussion of indications not to breastfeed: Alternatives (formula and milk banks) (attachment D)
- Breast anatomy (attachment E)
- Introduction of breastfeeding support group
- Sign-up for breastfeeding group with hand out of Annotated Bib for breastfeeding families (attachment F)

In addition to the course a support group will be formed. By attending the support group, families will:

- Provide, as well as receive support by having an opportunity to meet and engage in conversation with other breastfeeding families
- Be provided the opportunity to interact with other breastfeeding families and exchange information and questions to encourage continued breastfeeding
- Foster continued breastfeeding education by beginning group meetings with a short education briefing (approximately ½ hour) based on requests by the attendees from the previous month

The support group will continue to evolve based on the needs of the participants. Information available in the form of handouts will include "Working and Breastfeeding" (attachment G), "Preparing for Breastfeeding" (attachment H), weekly breastfeeding logs to chart infant feeds and elimination (attachment I), article "Is My Baby Getting Enough Milk" (attachment J), frequently asked questions about early breastfeeding (attachment K), crib note to attach to crib while in hospital (attachment L), web site listings for medications and breastfeeding (attachment M), and resource list for "Breastfeeding Support Organizations" (attachment N).

Conclusion

Further research needs to be conducted on how education affects breastfeeding duration. By attending the course and becoming involved with the support group, the family will be provided support, learn about the barriers to prolonged breastfeeding, and made aware of difficulties so as to prevent early weaning. The intention of offering the proposed course is to increase breastfeeding duration in the military community to approach, or even reach the goals of Healthy People 2010 in the future. This increase should result in a commensurate decline in babies with health issues related to human milk substitutes.

Future Plans

After a site has been selected for the course offering, the Institutional Review Board (IRB) will be contacted for approval of a research study for evaluation of the program offering. This will offer the opportunity to conduct research regarding the effectiveness of the course, which will evaluate its effectiveness for increasing breastfeeding duration in the military community. It will be conducted after approximately one year of attending the early breastfeeding education and its associated support group. This can then be written up as a research article and used by more health care providers if it is successful at increasing breastfeeding duration.

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Some Breastfeeding Myths

Many women do not produce enough milk. Not true! The vast majority of women produce more than enough milk. Indeed, an overabundance of milk is common. Most babies that gain too slowly, or lose weight, do so not because the mother does not have enough milk, but because the baby does not get the milk that the mother has. The usual reason that the baby does not get the milk that is available is that he is poorly latched onto the breast. This is why it is so important that the mother be shown, on the first day, how to latch a baby on properly, by someone who knows what they are doing.

1. **It is normal for breastfeeding to hurt**

   Not true! Though some tenderness during the first few days is relatively common, this should be a temporary situation that lasts only a few days and should never be so bad that the mother dreads nursing. Any pain that is more than mild is abnormal and is almost always due to the baby latching on poorly. Any nipple pain that is not getting better by day 3 or 4 or lasts beyond 5 or 6 days should not be ignored. A new onset of pain when things have been going well for a while may be due to a yeast infection of the nipples. Limiting feeding time does not prevent soreness. (See Handout #3: Sore Nipples).

2. **There is no (not enough) milk during the first 3 or 4 days after birth**

   Not true! It often seems like that because the baby is not latched on properly and therefore is unable to get the milk that is available. When there is not a lot of milk (as there is not, normally, in the first few days), the baby must be well latched on in order to get the milk. This accounts for "but he's been on the breast for 2 hours and is still hungry when I take him off." By not latching on well, the baby is unable to get the mother's first milk, called colostrum. Anyone who suggests you pump your milk to know how much colostrum there is, does not understand breastfeeding, and should be politely ignored. Once the mother's milk is abundant, a baby can latch on poorly and still may get plenty of milk.

3. **A baby should be on the breast 20 (10, 15, 7.6) minutes on each side**

   Not true! However, a distinction needs to be made between "being on the breast" and "breastfeeding." If a baby is actually drinking for most of 15-20 minutes on the first side, he may not want to take the second side at all. If he drinks only a minute on the first side, and then nibbles or sleeps, and does the same on the other, no amount of time will be enough. The baby will breastfeed better and longer if he is latched on properly. He can also be helped to breastfeed longer if the mother compresses the breast to keep the flow of milk going, once he no longer swallows on his own (Handout #15: Breast Compression). Thus it is obvious that the rule of thumb that "the baby gets 90% of the milk in the breast in the first 10 minutes" is equally hopelessly wrong.

4. **A breastfeeding baby needs extra water in hot weather**

   Not true! Breastmilk contains all the water a baby needs.

5. **Breastfeeding babies need extra vitamin D**

Not true! All babies need vitamin D. Formula has it added at the factory. But the baby is born with a liver full of vitamin D, and outside exposure allows the baby to get the vitamin D from ultraviolet light. The baby does not need a lot of outside exposure and does not need outside exposure every day. Vitamin D is a fat soluble vitamin and is stored in the body. In some circumstances (for example, if the mother herself was vitamin D deficient during the pregnancy) it may be prudent to supplement the baby with vitamin D.

6. **A mother should wash her nipples each time before feeding the baby**

Not true! Formula feeding requires careful attention to cleanliness because formula not only does not protect the baby against infection, but also is actually a good breeding ground for bacteria and can also be easily contaminated. On the other hand, breastmilk protects the baby against infection. Washing nipples before each feeding makes breastfeeding unnecessarily complicated and washes away protective oils from the nipple.

7. **Pumping is a good way of knowing how much milk the mother has**

Not true! How much milk can be pumped depends on many factors, including the mother's stress level. The baby who nurses well can get much more milk than his mother can pump. Pumping only tells you have much you can pump.

8. **Breastmilk does not contain enough iron for the baby's needs**

Not true! Breastmilk contains just enough iron for the baby's needs. If the baby is full term he will get enough iron from breastmilk to last him at least the first 6 months. Formulas contain too much iron, but this quantity may be necessary to ensure the baby absorbs enough to prevent iron deficiency. The iron in formula is poorly absorbed, and most of it, the baby poops out. Generally, there is no need to add other foods to breastmilk before about 6 months of age.

9. **It is easier to bottle feed than to breastfeed**

Not true! Or, this should not be true. However, breastfeeding is made difficult because women often do not receive the help they should to get started properly. A poor start can indeed make breastfeeding difficult. But a poor start can also be overcome. Breastfeeding is often more difficult at first, due to a poor start, but usually becomes easier later.

10. **Breastfeeding ties the mother down**

Not true! But it depends how you look at it. A baby can be nursed anywhere, anytime, and thus breastfeeding is liberating for the mother. No need to drag around bottles or formula. No need to worry about where to warm up the milk. No need to worry about sterility. No need to worry about how your baby is, because he is with you.

11. **There is no way to know how much breastmilk the baby is getting**

Not true! There is no easy way to measure how much the baby is getting, but this does not mean that you cannot know if the baby is getting enough. The best way to know is that the baby actually drinks at the breast for several minutes at each feeding (open mouth wide-pause-close mouth type of suck). Other ways also help show that the baby is getting plenty (Handout #4: Is My Baby Getting Enough Milk?).

12. **Modern formulas are almost the same as breastmilk**

Not true! The same claim was made in 1900 and before. Modern formulas are only superficially similar to breastmilk. Every correction of a deficiency in formulas is advertised as an advance. Fundamentally formulas are inexact copies based on outdated and incomplete knowledge of what breastmilk is. Formulas contain no antibodies, no living cells, no enzymes, no hormones. They contain much more aluminum, manganese, cadmium, lead and iron than breastmilk. They contain significantly more protein than

breastmilk. The proteins and fats are fundamentally different from those in breastmilk. Formulas do not vary from the beginning of the feed to the end of the feed, or from day 1 to day 7 to day 30, or from woman to woman, or from baby to baby. Your breastmilk is made as required to suit your baby. Formulas are made to suit every baby, and thus no baby. Formulas succeed only at making babies grow well, usually, but there is more to breastfeeding than getting the baby to grow quickly.

13. **If the mother has an infection she should stop breastfeeding**

Not true! With very, very few exceptions, the mother's continuing to breastfeed will actually protect the baby. By the time the mother has fever (or cough, vomiting, diarrhea, rash, etc) she has already given the baby the infection, since she has been infectious for several days before she even knew she was sick. The baby's best protection against getting the infection is for the mother to continue breastfeeding. If the baby does get sick, he will be less sick if the mother continues breastfeeding. Besides, maybe it was the baby who gave the infection to the mother, but the baby did not show signs of illness because he was breastfeeding. Also, breast infections, including breast abscess, though painful, are not reasons to stop breastfeeding. Indeed, the infection is likely to settle more quickly if the mother continues breastfeeding on the affected side. (Handouts #9a and #9b: You Should Continue Breastfeeding.)

14. **If the baby has diarrhea or vomiting, the mother should stop breastfeeding**

Not true! The best medicine for a baby's gut infection is breastfeeding. Stop other foods for a short time, but continue breastfeeding. Breastmilk is the only fluid your baby requires when he has diarrhea and/or vomiting, except under exceptional circumstances. The push to use "oral rehydrating solutions" is mainly a push by the formula manufacturers (who also make oral rehydrating solutions) to make even more money. The baby is comforted by the breastfeeding, and the mother is comforted by the baby's breastfeeding. (Handouts #9a and b You should continue breastfeeding).

15. **If the mother is taking medicine she should not breastfeed**

Not true! There are very very few medicines that a mother cannot take safely while breastfeeding. A very small amount of most medicines appears in the milk, but usually in such small quantities that there is no concern. If a medicine is truly of concern, there are usually equally effective, alternative medicines that are safe. The loss of benefit of breastfeeding for both the mother and the baby must be taken into account when weighing if breastfeeding should be continued (Handouts #9a and #9b: You Should Continue Breastfeeding.)

Handout #11 *Some Breastfeeding Myths*. Revised January 2003
Written by Jack Newman, MD, FRCPC. © 2003

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B

Benefits of Breastfeeding

Human milk is uniquely suited for human infants

- Human milk is easy to digest and contains all the nutrients that babies need in the early months of life.
- Factors in breast milk protect infants from a wide variety of illnesses.
- Fatty acids, unique to human milk, may play a role in infant brain and visual development.
- In several large studies, children who had been breastfed had a small advantage over those who have not been breastfed when given a variety of cognitive and neurological tests, including measures of IQ.

Breastfeeding saves lives

- Lack of breastfeeding is a risk factor for sudden infant death syndrome (SIDS).
- Human milk may protect premature infants from life-threatening gastrointestinal disease.

Breastfed infants are healthier

- Infants who are exclusively breastfed for at least 4 months, are half as likely as infants who are not breastfed to have ear infections in the first year of life.
- Breastfeeding reduces the incidence, and lessens the severity of a large number of bacterial infections, including meningitis.
- Breastfeeding protects against a variety of illnesses, such as diarrhea and infant botulism.
- Evidence suggests that exclusive breastfeeding for at least two months protects susceptible children from Type I insulin dependent diabetes mellitus (DDM).
- Breastfeeding may reduce the risk for subsequent inflammatory bowel disease, multiple sclerosis and childhood lymphoma.

Breastfeeding helps mothers recover from childbirth

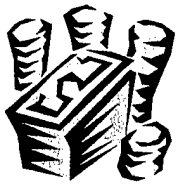
- Breastfeeding helps the uterus to shrink to its pre-pregnancy state and reduces the amount of blood lost after delivery.
- Mothers who breastfeed for at least 3 months may lose more weight than mothers who do not breastfeed.
- Breastfeeding mothers usually resume their menstrual cycles 20 to 30 weeks later than mothers who do not breastfeed.

Breastfeeding keeps women healthier throughout their lives

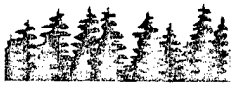
- Breastfeeding can help in child spacing among women who do not use contraceptives (The Lactation Amenorrhea Method).
- Breastfeeding reduces the risk of breast and ovarian cancer.
- Breastfeeding may reduce the risk of osteoporosis.
- During lactation, total cholesterol, LDL cholesterol, and triglyceride levels decline while the beneficial HDL cholesterol level remains high.

Breastfeeding is economical

- The cost of infant formula has increased 150 percent since the 1980's.
- Breastfeeding reduces health care costs.



Breastfeeding is environmentally sound



- Unlike infant formula, breastfeeding requires no fossil fuels for its manufacture or preparation.
- Breastfeeding reduces pollutants created as by-products during the manufacture of plastics for bottles and metal for cans to contain infant formula.

- Breastfeeding reduces the burden on our landfills, as there are no cans to throw away.

WIC

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California Department of Health Services

Breastfeeding and Guilt

One of the most powerful arguments many health professionals, government agencies and formula company manufacturers make for not promoting and supporting breastfeeding is that we should "not make the mother feel guilty for not breastfeeding." Even some strong breastfeeding advocates are disarmed by this "not making mothers feel guilty" ploy.

Because, indeed, it is nothing more than a ploy. It is an argument which deflects attention from the lack of knowledge and understanding of most health professionals about breastfeeding. This allows them not to feel guilty for their ignorance of how to help women overcome difficulties with breastfeeding, which could have been overcome and usually which could have been prevented in the first place if mothers were not so undermined in their attempts to breastfeed. This argument also seems to allow formula companies and health professionals to pass out formula company literature and free samples of formula to pregnant women and new mothers without pangs of guilt, though it has been well demonstrated that this literature and the free samples decrease the rate and duration of breastfeeding.

Let's look at real life. If a pregnant woman went to her physician and admitted she smoked a pack of cigarettes, is there not a strong chance that she would leave the office feeling guilty for endangering her developing baby? If she admitted to drinking a couple of beers every so often, is there not a strong chance that she would leave the office feeling guilty? If a mother admitted to sleeping in the same bed with her baby, would most physicians not make her feel guilty for this even though it is the best thing for her and the baby? If she went to the office with her one week old baby and told the physician that she was feeding her baby homogenized milk, what would be the reaction of her physician? Most would practically collapse and have a fit. And they would have no problem at all making that mother feel guilty for feeding her baby cow's milk, and then pressuring her to feed the baby formula. (Not pressuring her to breastfeed, it should be noted, because "you wouldn't want to make a woman feel guilty for not breastfeeding.")

Why such indulgence for formula? The reason of course, is that the formula companies have succeeded so brilliantly with their advertising to convince most of the world that formula feeding is just about as good as breastfeeding, and therefore there is no need to make such a big deal about women not breastfeeding. As a vice president of Nestle here in Toronto was quoted as saying "Obviously, advertising works." It is also a balm for the consciences of many health professionals who, themselves, did not breastfeed, or their wives did not breastfeed. "I will not make women feel guilty for not breastfeeding, because I don't want to feel guilty for my child not being breastfed."

Let's look at this a little more closely. Formula is certainly theoretically more appropriate for babies than cow's milk. But, in fact, there are no clinical studies which show that there is any difference between babies fed cow's milk and those fed formula. Not one. Breastmilk, and breastfeeding, which is not the same as breastmilk feeding, has many more theoretical advantages over formula than formula has over cow's milk (or other animal milk). And we are just learning about many of these advantages. Almost every day there are more studies telling us about these theoretical advantages. But there is also a wealth of clinical data showing that, even in affluent societies, breastfed babies, and their mothers incidentally, are much better off than formula fed babies. They have fewer ear

infections, fewer gut infections, a lesser chance of developing juvenile diabetes and many other illnesses. The mother has a lesser chance of developing breast and ovarian cancer, and is probably protected against osteoporosis. And these are just a few examples.

So how should we approach support for breastfeeding? All pregnant women and their families need to know the risks of formula feeding. All should be encouraged to breastfeed, and all should get the best support available for starting breastfeeding once the baby is born. Because all the good intentions in the world will not help a mother who has developed terribly sore nipples because of the baby's poor latch at the breast. Or a mother who has been told, almost always inappropriately, that she must stop breastfeeding because of some medication or illness in her or her baby. Or a mother whose supply has not built up properly because she was given wrong information. Make no mistake about it—health professionals' advice is often the single most common reason for mothers failing at breastfeeding!

If mothers get the information about the risks of formula feeding and decide to formula feed, they will have made an informed decision. This information must not come from the formula companies themselves, as it often does. Their pamphlets give some advantages of breastfeeding and then go on to imply that their formula is almost, actually just as good. If mothers get the best help possible with breastfeeding, and find breastfeeding is not for them, they will get no grief from me. It is important to know that a woman can easily switch from breastfeeding to bottle feeding. In the first days or weeks—no big problem. But the same is not true for switching from bottle feeding to breastfeeding. It is often very difficult or impossible, though not always.

Finally, who does feel guilty about breastfeeding? Not the women who make an informed choice to bottle feed. It is the woman who wanted to breastfeed, who tried, but was unable to breastfeed. In order to prevent women feeling guilty about not breastfeeding what is required is not avoiding promotion of breastfeeding, but promotion of breastfeeding coupled with good, knowledgeable and skillful support. This is not happening in most North American or European societies.

Jack Newman, MD, FRCPC
August 1997

BreastfeedingOnLine.com

Milk Bank List:

HUMAN MILK BANKING ASSOCIATION OF NORTH AMERICA

The Human Milk Banking Association of North America (HMBANA) is a multidisciplinary group of health care providers that promotes, protects, and supports donor milk banking. HMBANA is the only professional membership association for milk banks in Canada, Mexico and the United States and as such sets the standards and guidelines for donor milk banking for those areas.

http://www.hmbana.com/

Mothers' Milk Bank

Mothers' Milk Bank is a non-profit community bank based at
Presbyterian/St.Luke's Medical Center
1719 East 19th Avenue
Denver, Colorado 80218
(303) 869-1888
Laraine Borman, IBCLC, Director
www.mmilkbank@health1.org

http://www.health1.org/milkbank.asp

Mother's Milk Bank of Iowa

Mother's milk bank of Iowa is part of the Division of Pediatric Nutrition at Children's Hospital of Iowa. Since 1917, its research has focused on nutrition and growth of term and pre-term infants. The milk bank is a member of the Human Milk Banking Association of North America, Inc.

Department of Pediatrics, Division of Pediatric Nutrition
University of Iowa Hospitals and Clinics
200 Hawkins Drive Iowa City, IA 52242

E-mail:
jean-drulis@uiowa.edu
janice-jeter@uiowa.edu

Telephone:
319-356-2341
877-891-5347

Fax:
319-353-7598

http://www.uihealthcare.com/depts/childrenshospitalofiowa/milkbank/index.html

Mothers' Milk Bank At Santa Clara Valley Medical Center

The Mothers' Milk Bank, located at Valley Medical Center in San Jose, California, is a licensed tissue bank that has been providing service for nearly 30 years. As a charter member of the Human Milk Banking Association of North America, the Mothers' Milk Bank has been a leader in this endeavor. Since 1974, over 4000 donors have provided over 1.5 million ounces of milk to the tiniest of premature infants, babies and toddlers who are failing to thrive, or have life-threatening diseases or conditions, and children who have failing immune systems or catastrophic diseases to endure.

Mothers' Milk Bank
Valley Medical Center
751 S. Bascom Ave.
San Jose, CA 95128

Phone: (408) 998-4550
Fax: (408) 297-9208

e-mail contact: MothersMilkBank@hhs.co.santa-clara.ca.us

http://home.earthlink.net/~milkbank/

Mothers' Milk Bank at Austin

900 East 30th St, Suite 214
Austin, Texas 78705

Ph# (512) 494-0880

http://www.mmbaustin.org/index.htm

Mothers' Milk Bank, Christiana Care Health System, Newark, DE

Mothers' Milk Bank
(302) 733-2340
Fax (302) 733-2602

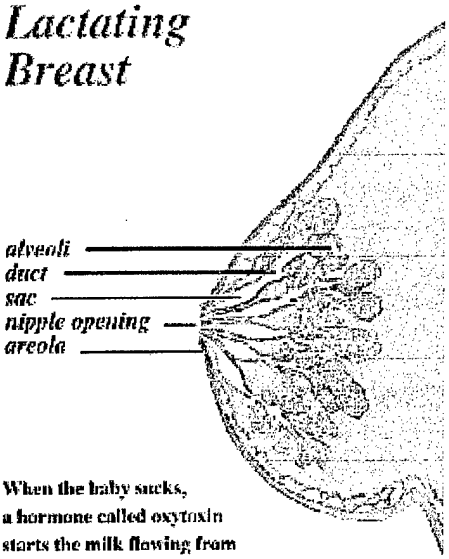
http://www.christianacare.org/womens_health/womens_health_milk.cfm

Triangle Mothers' Milk Bank, Wake Medical Center, Raleigh, NC

Triangle Mothers' Milk Bank
WakeMed
300 New Bern Avenue
Raleigh, NC 27610
(919) 250-8599
FAX (919) 250-7749

E

The Lactating Breast



When the baby sucks, a hormone called oxytocin starts the milk flowing from the alveoli, through the ducts (milk canals) into the sacs (milk pools) behind the areola, and finally into the baby's mouth.

Annotated Bib for breastfeeding families:

Fredregill, S. & Fredregill, R. (2002). *The everything breastfeeding book: basic techniques and reassuring advice every new mother needs to know.* Avon, Massachusetts: Adams Media Corporation.

A good book with excellent lay out and easy to find subjects. Easy to read and understand book for breastfeeding moms. Good information from preparation through weaning.

Huggins, Kathleen. (1995). *The nursings mother's companion.* Boston: Harvard Common Press.

Forward by Ruth Lawrence. Great guide for all mothers. Excellent in description of preparation for breastfeeding . Good advise for the first week of breastfeeding. Also information for special situations and working moms.

Mason, Diane. (1997). *Breastfeeding and the working mother.* New York: St Martin's Griffin.

Great reference for working mothers. Discusses all aspect of work and legal rights of working mothers for breastfeeding.

Meek, J. Y. (2002). *American Academy of Pediatrics: New Mother's Guide to Breastfeeding.* Bantam Books.

Good questions and answers to breastfeeding issues. Great section on first feeding. Very informative book, but somewhat technical in nature. Very good appendix for resources with full addresses and web sites. Excellent, easy to use sample of breastfeeding record for parents.

Neifert, Marianne R. (1998). *Dr. mom's guide to breastfeeding.* New York: Plume.

Good guide with over 50 illustrations to assist families with good latch on and proper positioning of infant. Good information on diet and exercise while breastfeeding

Peterson, Debra Stewart. (1994). *Breastfeeding the adopted baby.* San Antonio, Tx: Corona Publis hing Co.

Good reference for adoptive parents thinking of breastfeeding. Easy to read excellent advise on how to breastfeed you adopted infant.

Pfluke, J. A. (1995). *Breatfeeding and the active woman. Waco, Tx: WRS publishing.*

Very good inforamtion for the working and active mother. Written by a mother who breastfeed two babies while active duty Army. good inforation on how to pump and store milk. Some information may be out of date for milk storage, but useful infomation on how to keep up milk supply.

Spangler, Amy. (1995). *Amy Spangler's breastfeeding: A parent's guide.* Atlanta: Amy Spangler.

A great book for breastfeeding families. Good explanations of problems that can be encountered during the early weeks of breastfeeding. Excellent problem solving tips and advise.

Tamaro, Janet. (1996). *So that's what they're for!: Breastfeeding basics.* Holbrook, Mass. Adams media.

Good basic start book. Excellent examples on first feedings and how to handle issues in the first few days. of feeding. Excellent expamples of how to handle problems that will arrise.

Wiggins, P. (1998). B*reastfeeding: A mother's gift.* Franklin, VA: L.A. Publishing Company.

Great information on why and how to breastfeed an infant. Good references on resources and information sites.

Womanly art of breastfeeding 6th ed.. (1997). New York, NY: Plume

A great guide for all families. One of the classics for breastfeeding advise. A little more difficult to read than some books. Good information for preparing to breastfeeding and returning to work. Great references for more information and how to find support groups in your area.

Woessner, Candace. (1996). *Breastfeeding today: A mothers companion.* Garden City, Park, NY: Avery Publication Group.

Practical advice for the breastfeeding mother. Good descriptions of equipment and explanations of how to use equipment for continued breastfeeding. Great advise on diet and exercise for the breastfeeding mom.

G

Working and Breastfeeding

Many mothers juggle being a mom and working outside the home. Women who return to work and continue to breastfeed their babies say it is "well worth the effort" and they would "do it again with the next baby."

Mothers, babies, families and employers all benefit from breastfeeding.

Your employer can help

California law supports breastfeeding mothers who are working. Beginning January 1, 2002, employers are required to provide:

- a reasonable amount of normal break time to accommodate an employee desiring to express breastmilk, and
- make a reasonable effort to provide the employee with the use of a room or other location, other than a toilet stall, in close proximity to the employee's work area, for the employee to express milk in private.

If possible, the break time should coincide with the employee's paid break time. If not, the break time need not be paid. Employers are exempt from providing the additional break time if to do so would seriously disrupt operations. To read the actual law, go to www.assembly.ca.gov. Click on legislation, then search for AB 1025.

Talk with your employer before returning to work to arrange where and when you will be able to express milk at work. Check into the use of a vacant office or a break room, or borrowing a co-worker's office while he/she is on break. Initially, plan on 30 minute breaks about every three hours to express milk. Adjust the schedule to your individual needs.

Tips before returning to work:

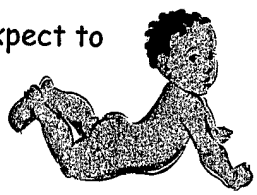
- Take as long of a maternity leave as you can. The early weeks are important for bonding with your baby and building your milk supply.

- Rest, relax and focus on getting breastfeeding off to a good start.
- Establish a good milk supply by breastfeeding often. Beware of supplementing with infant formula; it may cause your body to make less milk.
- If you plan to use a bottle or cup when you and baby are separated, introduce the bottle to your baby a few weeks before you return to work. Then offer the bottle or cup every once in a while so baby learns how to drink from it.
- If your baby will not take a bottle or cup from you, have someone else give it.

- Choose a childcare provider that supports breastfeeding moms.
- Start storing expressed milk at least 2 weeks before going back to work. Store milk in small amounts, 2 to 4 ounces per bottle. Label bottles with the date collected and baby's name.
- Confirm plans with your employer on when and where you will express milk at work.
- Take a day to practice and see what returning to work will be like. Example: Get baby and yourself ready for the day, nurse, drop baby off at day care, go to work, pump during the day, pick baby up from day care, nurse, spend your evening as usual.
- If possible go back to work slowly---part time, $\frac{3}{4}$ time and then gradually going to full time.

Tips when back on the job:

- Consider making your first day back at work a Thursday. Working 2 days at first is easier than working an entire week.
- Nurse your baby before going to work.
- Pump your milk as often as you would nurse your baby. Label the container with the date and store it in a refrigerator or ice chest.
- Express breastmilk before your breasts start to feel full.
- Give your caregiver containers of expressed breastmilk to feed your baby.
- Ask your caregiver to avoid feeding baby close to the time you expect to pick up your child, so baby will be eager to breastfeed when you arrive.
- Nurse your baby when you return home, evenings, on weekends, and as often as you can whenever you are with your baby.



- Talk with other working breastfeeding mothers to share ideas and encourage each other.

Concerned with a low milk supply?

- Nurse more often. Nursing your baby is the best way to help you make more milk. Supplementing with infant formula may keep your body from making enough milk.
- Pump more often at work.
- Double pump—pump both breasts at the same time.
- Massage breasts, relax, and think of your baby while expressing your milk.

- Reduce stress—after work take a warm bath, listen to soothing music, and be physically active.
- Make life simpler—get help with chores at home and limit errands and extra responsibilities.
- Get more rest on weekends and during the night. Take baby to bed with you and nurse often.
- If trying to lose weight, lose no more than 1-2 pounds a week.
- See your health care provider or lactation specialist to discuss your situation.

How long should you breastfeed?

The American Academy of Pediatrics recommends breastfeeding at least until your baby is one year of age, and as long as you wish beyond that time. Enjoy the health benefits and closeness breastfeeding brings while you breastfeed and also later in life.

Adapted with permission from the Texas Department of Health.

WIC

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California Department of Health Services

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Preparing for Breastfeeding

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Your Body is already doing everything that needs to be done. By the time you are several months pregnant, you're ready to make milk and your breasts contain colostrum, the "pre-milk" that your baby gets in the first few days after birth. "Toughening" your nipples won't help soreness. Learning how to hold your baby for nursing will. Nipples are nothing more than a "target" to help a baby know where to nurse; all shapes and sizes work. If your nipples are the kind that never stand out, they may be a bit confusing for your baby at first, so ask about ways to encourage "shy" nipples. Other than that, treat your breasts and nipples just the way you treat the backs of your knees, but without the soap. The little bumps on the darker area around your nipple produce a cleanser/moisturizer that does all the work for you. If you have very dry skin, Lansinoh®, a very pure lanolin especially for nipples, may be helpful.

Your Mind needs more preparation than your body. Nursing is learned, not instinctive, and most mothers in this country have had little chance to learn. Try to go to at least one La Leche League meeting before your baby is born. You'll see how other mothers handle their nurslings, have a chance to hear and ask questions, and meet local breastfeeding specialists. Some good books on breastfeeding are:

- Dr. Jack Newman's Guide to Breastfeeding (available through most bookstores)
- The Womanly Art of Breastfeeding (available through La Leche League and most bookstores)
- Bestfeeding: Getting Breastfeeding Right for You (La Leche League and most bookstores)
- The Nursing Mother's Companion (most bookstores).

Buy or borrow one of them, and become familiar with

it. Avoid all formula company information! It may sound supportive, but it's designed to help breastfeeding fail.

Your Childbirth Classes are important. Breastfeeding is a basic, powerful biological system, and you can nurse no matter what kind of start you and your baby have. But it's easiest when your baby is born without drugs in her system, and when she has unbroken contact with you until after her first nursing. Most alert babies nurse within the first hour, and that first nursing may be a very long one. Take your time and enjoy each other. There's plenty of time for weighing and measuring afterwards.

Your Wardrobe already exists. Most mothers just wear their regular two-piece outfits and pull the top up on one side to nurse. The baby's body covers everything that the top doesn't cover. A T-shirt or button-front nightgown works well at night. A bra is optional at all times of your life, and doesn't prevent sagging. If you want to wear one, make it comfortably loose so that it gives you easy access for nursing. Some stretchy ones simply pull up. Others have a nursing flap. If you're an unusual size, call La Leche League for good sources. In all bras and tops, you'll find cotton far more comfortable than synthetics. Sections of cloth diaper or diaper liners folded around layered toilet paper make inexpensive breast pads for the early weeks, although most women never use pads at all.

Other Equipment isn't necessary. You've got what it takes!

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First Week Daily Breastfeeding Log

modified from Philadelphia Dept of Public Health log

Circle every hour when your baby starts a nursing.

Circle the W when your baby has a wet diaper.

Circle the S when your baby has a soiled diaper.

During the first week, you will use more diapers each day.

Birth Date: ___/___/___ Time: _____ AM PM

First 24 hours

12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11		GOAL 6 to 8
Wet diaper	W	1
Black tarry soiled diaper	S	1

Second 24 hours

12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11		GOAL 6 to 8
Wet diapers	W W	2
Brown tarry soiled diaper	S S	2

Third 24 hours

12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11		GOAL 8 to 12
Wet diapers	W W W	3
Green soiled diaper	S S	2

Fourth 24 hours

12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11		GOAL 8 to 12
Wet diapers	W W W W	4
Yellow soiled diapers	S S S	3

Fifth 24 hours

12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11		GOAL 8 to 12
Wet diapers	W W W W W	5
Yellow soiled diapers	S S S	3

Sixth 24 hours

12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11		GOAL 8 to 12
Wet diapers	W W W W W W	6
Yellow soiled diapers	S S S S	4

Seventh 24 hours

12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11		GOAL 8 to 12
Wet diapers	W W W W W W	6 to 8
Yellow soiled diapers	S S S S	4 to 12

It's OK for your baby to nurse more than 12 times each day, and to have more wet diapers or more soiled diapers. You CAN'T nurse too often. You CAN nurse too little. Call if you have fewer than the numbers on the log.

You will know that your baby is getting plenty of breastmilk in the first week of life when...

1. Your baby was on the breast as soon as possible after the delivery (ideally within one hour of birth). ☐
2. Your baby is interested in feeding every 1-1/2 to 2 hours. Babies have small stomachs and it is normal for them to be hungry often. ☐
3. Your baby can be heard or seen swallowing. ☐
4. Your baby seems satisfied and content after feeding. ☐
5. Your breasts feel softer after each feeding. ☐
6. Your baby has enough wet diapers and poops. ☐

I have an appointment for my baby's check up on

_____

Call _____
if you have any questions about breastfeeding.

You may also bring your baby to your WIC Center so they can help you with breastfeeding. Bring this sheet with you to your WIC visit.

COUNT THE DIAPERS

Check the boxes below to help keep track of how many poops and wet diapers your baby has each day.(example: ✓)

The boxes show the <u>smallest</u> number of diapers for most babies.

It is okay if your baby has more diapers than what is indicated.

Baby's age	wet	poops
DAY 1 (Birthday)	■	
DAY 2	■■	
DAY 3	■■■	
DAY 4	■■■■	
DAY 5		
DAY 6		
DAY 7		

Your baby may have more than 6 poops a day after the 1st week.

This handout is designed to be used until your baby is one week old.

Watch for the poops to change during the first week.

The color and texture of your baby's poops will change.

		Color and texture
Day 1-2		Thick, tarry and black
Day 3-4		Greenish yellow
By day 5		Seedy, watery mustard color

Call your doctor immediately or go to the emergency room if your baby has:

*a dry mouth
*sunken "soft spot" in the head
*red brick dust in urine or red colored urine
*baby's skin looks yellow (jaundice)

Public Health Foundation Enterprises WIC Program 10/01

Is My Baby Getting Enough Milk?

Breastfeeding mothers frequently ask how to know their babies are getting enough milk. The breast is not the bottle, and it is not possible to hold the breast up to the light to see how many ounces or millilitres of milk the baby drank. Our number obsessed society makes it difficult for some mothers to accept not seeing exactly how much milk the baby receives. However, there are ways of knowing that the baby is getting enough. In the long run, weight gain is the best indication whether the baby is getting enough, but rules about weight gain appropriate for bottle fed babies may not be appropriate for breastfed babies.

Ways of Knowing

1. Baby's nursing is characteristic

A baby who is obtaining good amounts of milk at the breast sucks in a very characteristic way. When a baby is getting milk (he is not getting milk just because he has the breast in his mouth and is making sucking movements), you will see a pause at the point of his chin after he opens to the maximum and before he closes his mouth, so that one suck is (open mouth wide-->pause-->close mouth). If you wish to demonstrate this to yourself, put your index or other finger in your mouth and suck as if you were sucking on a straw. As you draw in, your chin drops and stays down as long as you are drawing in. When you stop drawing in, your chin comes back up. This pause that is visible at the baby's chin represents a mouthful of milk when the baby does it at the breast. The longer the pause, the more the baby got. Once you know about the pause you can cut through so much of the nonsense breastfeeding mothers are being told-like feed the baby twenty minutes on each side. A baby who does this type of sucking (with the pauses) for twenty minutes straight might not even take the second side. A baby who nibbles (doesn't drink) for 20 hours will come off the breast hungry.

2. Baby's bowel movements

For the first few days after delivery, the baby passes meconium, a dark green, almost black, substance. Meconium accumulates in the baby's gut during pregnancy. Meconium is passed during the first few days, and by the 3rd day, the bowel movements start becoming lighter, as more breastmilk is taken. Usually by the fifth day, the bowel movements have taken on the appearance of the normal breastmilk stool. The normal breastmilk stool is pasty to watery, mustard coloured, and usually has little odour. However, bowel movements may vary considerably from this description. They may be green or orange, may contain curds or mucus, or may resemble shaving cream in consistency (from air bubbles). The variation in colour does not mean something is wrong. A baby who is breastfeeding only, and is starting to have bowel movements that are becoming lighter by day 3 of life, is doing well.

Without your becoming obsessive about it, monitoring the frequency and quantity of bowel motions is one of the best ways of knowing if the baby is getting enough milk (but not as good as observing the pause in the chin). After the first 3-4 days, the baby should have increasing bowel movements so that by the end of the first week he should be passing at least 2-3 substantial yellow stools each day. In addition, many infants have a stained diaper

with almost each feeding. A baby who is still passing meconium on the fourth or fifth day of life, should be seen at the clinic the same day. A baby who is passing only brown bowel movements is probably not getting enough, but this is not very reliable.

Some breastfed babies, after the first 3-4 weeks of life, may suddenly change their stool pattern from many each day, to one every 3 days or even less. Some babies have gone as long as 15 days or more without a bowel movement. As long as the baby is otherwise well, and the stool is the usual pasty or soft, yellow movement, this is not constipation and is of no concern. No treatment is necessary or desirable, because no treatment is necessary or desirable for something that is normal.

Any baby between 5 and 21 days of age who does not pass at least one substantial bowel movement within a 24 hour period should be seen at the breastfeeding clinic the same day. Generally, small, infrequent bowel movements during this time period mean insufficient intake. There are definitely some exceptions and everything may be fine, but it is better to check.

3. Urination

With six soaking wet (not just wet) diapers in a 24 hours hour period, after about 4-5 days of life, you can be sure that the baby is getting a lot of milk (if he is only breastfeeding). Unfortunately, the new super dry "disposable" diapers often do indeed feel dry even when full of urine, but when soaked with urine they are heavy. It should be obvious that this indication of milk intake does not apply if you are giving the baby extra water (which, in any case, is unnecessary for breastfed babies, and if given by bottle, may interfere with breastfeeding). The baby's urine should be almost colourless after the first few days, though an occasional darker urine is not of concern. During the first 2-3 days of life, some babies pass pink or red urine. This is not a reason to panic and does not mean the baby is dehydrated. No one knows what it means, or even if it is abnormal. It is undoubtedly associated with the lesser intake of the breastfed baby compared with the bottle fed baby during this time, but the bottle feeding baby is not the standard on which to judge breastfeeding. However, the appearance of this colour urine should result in attention to getting the baby well latched on and making sure the baby is drinking at the breast. During the first few days of life, only if the baby is well latched on can he get his mother's milk. Giving water by bottle or cup or finger feeding at this point does not fix the problem. It only gets the baby out of hospital with urine that is not red. Fixing the latch, using compression usually fix the problem. If relatching and breast compression do not result in better intake, there are ways of giving extra fluid without giving a bottle directly (Handout #5: Using a Lactation Aid). Limiting the duration or frequency of feedings can also contribute to decreased intake of milk.

The Following are NOT Good Ways of Judging

- Your breasts do not feel full. After the first few days or weeks, it is usual for most mothers not to feel full. Your body adjusts to your baby's requirements. This change may occur quite suddenly. Some mothers breastfeeding perfectly well never feel engorged or full.
- The baby sleeps through the night. Not necessarily. A baby who is sleeping through the night at 10 days of age, for example, may, in fact, not be getting enough milk. A baby who is too sleepy and has to be awakened for feeds or who is "too good" may not be getting enough milk. There are many exceptions, but get help quickly.
- The baby cries after feeding. Although the baby may cry after feeding because of hunger, there are also many other reasons for crying. See also handout #2 Colic in the Breastfeeding Baby. Do not limit feeding times. "Finish" the first side before offering the other.
- The baby feeds often and/or for a long time. For one mother every 3 hours or so feedings may be often; for another, 3 hours or so may be a long period between feeds. For one, a feeding that lasts for 30 minutes is a long feeding; for another, it is a short one. There are no rules how often or for how long a baby should nurse. It is not true that the baby gets 90% of the feed in the first 10 minutes. Let the baby determine his own feeding schedule and things usually come right, if the baby is suckling and drinking at the breast and having at least 2-3 substantial yellow bowel movements each day. Remember, a baby may be on the breast for 2 hours, but if he is actually feeding (open wide-pause-close mouth type of sucking) for only 2 minutes, he will come off the breast hungry. If the baby falls asleep quickly at the breast, you can compress the breast to continue the flow of milk (Handout #15: Breast Compression). Contact the breastfeeding clinic with any concerns, but wait to start supplementing. If supplementation is truly necessary, there are ways of supplementing which do not use an artificial nipple (Handout #5: Using a Lactation Aid).

- "I can express only half an ounce of milk". This means nothing and should not influence you. Therefore, you should not pump your breasts "just to know". Most mothers have plenty of milk. The problem usually is that the baby is not getting the milk that is available, either because he is latched on poorly, or the suckle is ineffective or both. These problems can often be fixed easily.
- The baby will take a bottle after feeding. This does not necessarily mean that the baby is still hungry. This is not a good test, as bottles may interfere with breastfeeding.
- The 5 week old is suddenly pulling away from the breast but still seems hungry. This does not mean your milk has "dried up" or decreased. During the first few weeks of life, babies often fall asleep at the breast when the flow of milk slows down even if they have not had their fill. When they are older (4-6 weeks of age), they no longer are content to fall asleep, but rather start to pull away or get upset. The milk supply has not changed; the baby has. Compress the breast (Handout #15: Breast Compression) to increase flow.

Notes on Scales and Weights

- Scales are all different. We have documented significant differences from one scale to another. Weights have often been written down wrong. A soaked cloth diaper may weigh 250 grams (half a pound) or more, so babies should be weighed naked or with a brand new dry diaper.
- Many rules about weight gain are taken from observations of growth of formula feeding babies. They do not necessarily apply to breastfeeding babies. A slow start may be compensated for later, by fixing the breastfeeding. Growth charts are guidelines only.

Handout #4. *Is My Baby Getting Enough?* Revised January 2003
Written by Jack Newman, MD, FRCPC.

BreastfeedingOnLine.com

Frequently Asked Questions about Approach to Early Breastfeeding

Why is sleeping near the baby recommended?

There is a growing body of evidence showing the benefits of sleeping near the baby, rather than in a separate room. In the hospital, it has been shown that newborns who room-in with their mothers sleep more and cry less, and that mothers get the same amount of sleep whether they leave the baby in the nursery or keep the baby with them.

Sleeping near the baby facilitates breastfeeding at the earliest signs of hunger, thus helping build milk supply. Parents should be advised to continue this practice, even after they leave the hospital.

Bedsharing, in particular, has been shown to promote breastfeeding. There have been some concerns about bedsharing if not done safely. However, the Academy of Breastfeeding Medicine notes that there is insufficient evidence to routinely discourage co-sleeping. The ABM defines co-sleepers as those "who remain close enough for each to detect and potentially act on the sensory stimuli of the other, and this includes an infant sleeping alongside a parent on a different piece of furniture or object," as well as an infant who shares a bed with the parent.

Data about bedsharing show that such babies learn to respond to mother's movements and breathing, and that mothers learn to respond to baby's early feeding cues. Babies who bedshare have been found to spend more time nursing than babies who don't, and this helps build milk supply. In addition, nursing the baby in the sidelying position allows both parents to wake up more well-rested in the morning.

Having the baby sleep in a separate room from the mother, even with a baby monitor, does not result in these benefits. Crying is a late sign of hunger, and it is important to feed the baby well before one can hear him crying down the hall. It is also harder to feed a crying baby.

If a mother shares a bed with her infant, it is important that she know how to do this safely.

- The bed should be away from a wall on both sides to avoid entrapment.
- Heavy blankets, duvets, or pillows should be avoided.
- Soft surfaces such as waterbeds, couches, and daybeds should be avoided.
- Neither parent should be under the influence of alcohol, illegal drugs, or medications that would interfere with their ability to wake up.
- As with sleeping separately, the infant should be placed on his back.
- A baby should not sleep alone on an adult bed.
- No one except parents should share a bed with the baby.
- Because the risk of SIDS is higher in children of smokers, it is advised that parents who smoke do not bedshare, but can sleep with the baby nearby.

Why should pacifiers be discouraged?

There is growing evidence that pacifier use is associated with decreased breastfeeding duration. Pacifiers may mask the early signs of hunger, when feeding is important for establishing and building a milk supply. In addition, it is normal for a baby to rest or pause during a feeding; should feeding be terminated early in favor of a pacifier, this may have adverse effects on baby's intake and thus on mother's milk supply. The more the baby takes in, the more milk the mother will make in response.

Mothers who use pacifiers often find that they do not make enough milk. While some parents successfully use pacifiers after breastfeeding has been well established, pacifier use is inappropriate in healthy term newborns with possible breastfeeding problems (Warning Signs or Red Flags).

If a baby is awake and alert, making movements with his mouth, or sucking his fist, he is probably hungry and needs to nurse. Sucking on a pacifier requires different motor groups than sucking on a breast, so using a pacifier may make it hard for a baby to learn how to suck on the breast.

A baby who wants to nurse for comfort will likely get the satisfaction he seeks more quickly from the warmth of his mother's breast than from a pacifier. Comfort suckling may help a mother make more milk through nipple stimulation. It may be helpful to explain to the mother that the breast is not a substitute for a pacifier. In fact, elsewhere in the world, pacifiers are called "dummies" because they are substitutes for the breast. Bottle fed babies seem to have a need for pacifiers because they don't receive the comfort of the breast.

What about bottles? What is alternative feeding?

It has been reported that using bottles or artificial teats in the early weeks may make it difficult for a baby to learn to breastfeed. "Alternative feeding methods" technically refers to feeding a baby without the breast, but many breastfeeding professionals also take it to mean feeding without a bottle. For mothers who plan on going back to work, it is recommended that they introduce at about 3-4 weeks, but not before.

If a newborn is having trouble breastfeeding, feeding with a bottle may ultimately make the troubles worse. One must balance the potentially detrimental use of the bottle with the urgency of the situation. A baby who is very dehydrated or compromised may not feed effectively via alternative methods; in this situation, offering a bottle is the fastest way to rehydrate the baby, short of administering intravenous fluids.

Alternative methods include cup feeding, dropper or syringe feeding, finger feeding, or using a nursing supplementer, in which the baby drinks from a tube taped to the mother's nipple. A lactation consultant can be helpful in this situation and can teach a therapeutic use of a bottle, especially in situations where longer-term supplementation might be indicated.

NOTE: Use of formula without a medical reason may interfere with the establishment and building of the mother's milk supply. The more frequently the baby nurses, the more milk the mother will make, provided that milk transfer is effective. Using formula without a medical reason may cause a baby to be too full to nurse frequently.

continued next page

Frequently Asked Questions about Approach to Early Breastfeeding *continued*

Why are feedings checked frequency considered important?

A typical range of feedings is 8-12 feeds per 24 hours. More than 12 feeds daily may suggest that a baby is still hungry after a feed or that baby is not optimally positioned and latched-on to obtain maximal milk flow. Fewer feeds might indicate inadequate intake and may result in poorer milk production. The number of feedings per day is more important than the timing of feeding. Babies may cluster several feedings over a period of hours, but go for longer stretches at night without feeding, for example.

Similarly, a prolonged feeding may mean that the baby is not getting enough milk, especially if the mother cannot tell if the baby is swallowing during this feeding. Mothers should learn to differentiate nutritive suckling from comfort suckling. In nutritive suckling, there is a sustained rhythmic suck-swallow pattern with occasional pauses. In comfort suckling, the movement is lighter, and does not tend to give a strong tugging sensation. Comfort suckling may help stimulate milk production by nipple stimulation; however if milk is not removed from the breast during nutritive suckling, milk supply will diminish. One sign of suboptimal breastfeeding is a baby who is feeding continuously for long periods but without audible swallowing.

Mothers should be encouraged to "watch the baby, not the clock." This means that mothers should respond to changes in swallowing patterns—switching breasts when swallowing slows or when the baby takes himself off the breast. At one time, it was common for women to be advised to nurse "10-20 minutes on a side." However, there's no evidence to support timing feeds in this way.

It is important to feed at the earliest signs of hunger: stretching, mouth movements, chewing on hands and rooting. Mothers should be counseled not to wait until the baby is crying to feed him. Feeding early and often helps build and maintain an adequate milk supply and good weight gain.

What does tongue-tie look like?

Tongue-tie, or ankyloglossia, occurs when the lingual frenulum under the tongue is too short or displaced anteriorly. This may limit mobility of the tongue. When the baby attempts to stick out the tongue, the tongue appears heart-shaped or has a V-shaped notch at the tip. Tongue-tie occurs in about 5% of infants. Significant tongue-tie may result in breastfeeding difficulties, including inadequate milk transfer and sore nipples. If tongue-tie results in breastfeeding difficulties, it may be corrected with a simple procedure, frenotomy, or with a more elaborate procedure, frenuloplasty.

What is skin-to-skin contact?

Skin-to-skin contact means the baby's bare skin is in direct contact with the mother's bare skin. Skin-to-skin contact helps encourage breastfeeding and can be especially useful in a sleepy baby. In a cold environment, mother and baby can both be covered with a blanket, or baby can be underneath mother's clothes.

Why should we expect baby to lose weight?

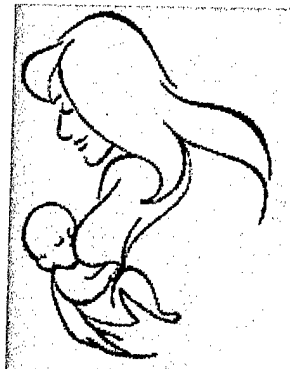
Because babies are born with extra body fluid, the loss of this fluid through urination typically results in weight loss in the first days of life. However, some babies are particularly edematous at birth, and may therefore lose excessive amounts of weight through diuresis. It has been reported that some labor interventions may cause excess fluid retention in a newborn. Large or frequent meconium stools can also account for some excess weight loss. Weight loss that's more than expected may represent excessive fluid overload at birth or large meconium losses, and may not necessarily reflect inadequate milk transfer in a baby who is otherwise doing well.

What is double pumping?

Double pumping refers to pumping both breasts simultaneously, which is generally accomplished with an electric pump. Double pumping results in higher prolactin levels than pumping one breast at a time, and also may be quicker for the mother.

Massachusetts Breastfeeding Coalition

www.massbfc.org



Breastfeeding Online Articles, Advice, Encouragement

Dear Nurse,

If I am a healthy full-term baby, please don't give me any water bottles, formula, or pacifiers.

I eat "on cue" or every 1 - 3 hours, whichever comes first, daytime and nighttime.

I may be allowed to sleep one 4 - 5 hour period at night if I have already had 8 feedings that da

My mom allows bunching (frequent feedings) whenever I want.

My mom feeds me from both breasts at each feeding for as long as I want. If my latch-on and p are correct, my mom won't become sore.

My mom understands that I need to eat 8 - 12 times in 24 hours.

Please don't separate me from my mom for long periods of time unless it is medically necessar been with my mom a long time and want to stay with her.

_____ Mother's Signature

_____ Baby's Name

Medications Forums

Home
Drug Entry
Other Links
About Dr. Hale
Lecture Outlines
Radioisotopes
Silicone
Dr. Hale Books
Lactation Registry
2004 Lectures
Metformin
New Drugs
Medications Forums
Legal
Meperidine vs Morphine

I receive numerous queries each day about the use of medications in breastfe am creating this forum in an effort to provide everyone with the newest data and i have available and also in an effort to reduce my email burden each day.

However, I have decided to restrict the entry of questions to Healthcar Only. Lacation consultants, LLL leaders, physicians, pharmacists, nurses, and ot in this field may post a question particularly if it is something new or not well co books.

However, anyone can read and peruse the informatio

My last forum (which was destroyed by a virus) was open to all and it beca burden just to answer all the questions every day. Lets try this out and see if l load.

Please remember, everyone may read the data in these forums. Just enter as a

TW Hale, Ph.D.

Healthcare Professionals Enter Here

Guests Please Enter Here

Breastfeeding Support Organizations

- Regional Breastfeeding Coalitions in California (PDF) NEW!
- AAP Breastfeeding Related Policy Statements; Press Statement & Releases; Related Survey; Practice Parameters; Articles & Excerpts: www.aap.org/visit/brres.htm
- Academy of Breastfeeding Medicine: www.bfmed.org

- American Academy of Pediatrics: www.aap.org
- African American Breastfeeding Alliance: www.aabaonline.com

- Australian Breastfeeding Association: www.breastfeeding.asn.au

- Baby Friendly Hospital Initiative News: www.aboutus.com/a100/bfusa

- Baby Milk Action: www.babymilkaction.org

- Breastfeeding Promotion in Pediatric Office Practices Program: www.aap.org/visit/brpromo.htm

- Coalition to Improve Maternity Services: www.Healthy.net/CIMS/

- Healthy People 2010 Objectives from The Office of Disease Prevention and Health Promotion: http://web.health.gov/HealthyPeople E-mail: MarshaLact@aol.com

- Human Milk Banking Association of N. America. www.hmbana.org
  E-mail: aprather@olsonmgmt.com

- Infact Canada: http://www.infactcanada.ca/InfactHomePage.htm

- International Baby Food Action Network (IBFAN): www.ibfan.org

- La Leche League International: www.LaLecheLeague.org

- Milk Banking:

In the United States:	In Canada:
• Mothers' Milk Bank www.milkbanksj.org Valley Medical Center San Jose, CA 408-998-4550	• C & W Milk Bank Lactation Services British Columbia Children's Hospital Vancouver BC Canada 604-875-2345
• Mothers' Milk Bank P/SL Medical Center Denver CO 303-869-1888	In Mexico:
• Lactation Center and Mothers' Milk Bank WakeMed Raleigh NC 919-350-8599	• Banco de Leche Veracruz, Mexico +52 55 14 45 51
• Mothers' Milk Bank Christiana Care Health System	

Newark DE 302-733-2340 • Mothers' Milk Bank of Austin Austin TX 512-494-0800	

- March of Dimes: www.modimes.org
- Media Watch for Breastfeeding: www.tdh.state.tx.us/lactate/media.htm
- Mother-Friendly Childbirth Initiative: www.motherfriendly.org
- National Health Mothers, Healthy Babies Coalition: www.hmhb.org
- New Mexico Breastfeeding Task Force: www.breastfeedingnewmexico.org
- Office on Women's Health: www.4woman.gov/Breastfeeding/index.htm
- PAC/LAC: www.paclac.org
- Pediatrics: www.pediatrics.org
- Promotion of Mothers Milk: www.promom.org
- Safety Alerts: www.safetyalerts.com
- San Diego Breastfeeding Coalition: www.Breastfeeding.org
- Selling Out Mothers and Babies: Marketing of Breast Milk Substitutes in the USA
- Texas Breastfeeding Promotion from The Texas Department of Health, Bureau of Nutrition Services: http://www.tdh.state.tx.us/lactate/
- United Nations Children's Fund (UNICEF): www.unicef.org
- WHO International Code of Marketing of Breastmilk Substitutes: http://www.tdh.texas.gov/lactate/whocode.htm#item1
- World Alliance for Breastfeeding Action: www.waba.br.org
- World Health Organization: www.who.int

Other Breastfeeding Resources

- **Breastfeeding and Workplace: California Labor Law for Lactation Accommodation for Employees**
- **Breastfeeding Information, Management Tips, Other Resources** (Updated! Great resources for parents and professionals): Breastfeeding information and educational materials for health professionals and parents. Check out Dr. Newman's handouts here! Different language handouts are available in this section.

- **Breastfeeding Programs & Support Systems in Los Angeles County: A Needs Assessment** (80-pages in PDF- Aug. 2002)
- **Breastfeeding/Lactation Professional Education:** Locate training for lactation educators and consultants.
- **Breastfeeding Legislative Updates:** US Surgeon General Immediate Release and other legislative issues on breastfeeding.
- **Breastfeeding Support Organizations:** Locate organizations that support and promote breastfeeding.
- **Breastfeeding Research:** Clinical bibliography and other newest breastfeeding research news.
- **Lactation Professional Online Chat, Discussion, and Newsletters:** Network with other professionals.
- **Other Government Organizations and Institutions.**

To see a list of breastfeeding articles, hand-outs, and facts for parents, health professionals and public education, please see news, fact sheets and breastfeeding articles.